

92197

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: BERCH Examiner #: 59193 Date: 4/23
 Art. Unit: 1624 Phone Number 30 8470 Serial Number: 09/935149
 Mail Box and Bldg/Room Location: 4D15 Results Format Preferred (circle): PAPER DISK E-MAIL
4ED

If more than one search is submitted, please prioritize searches in order of need.

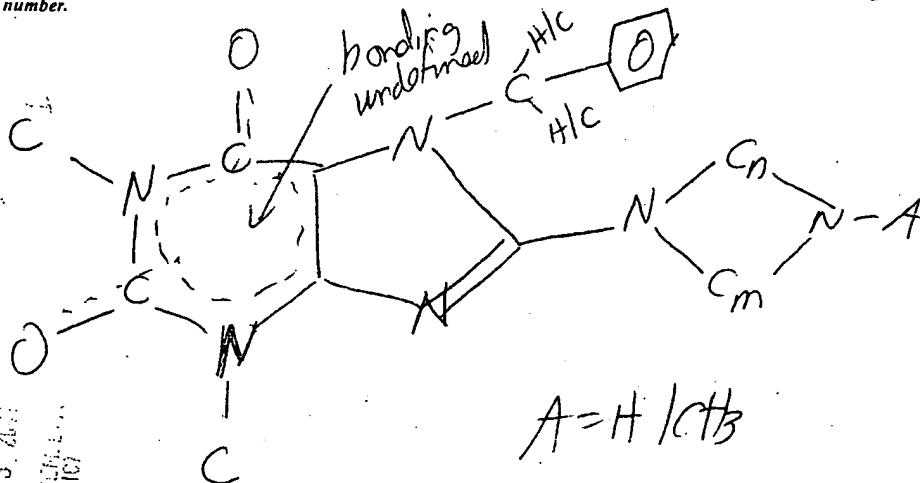
 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



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Mary Jane Ruhl
 Tech. Info. Specialist, STIC
 TC-1600
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no py 2002 a 2003

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	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>4/24/03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

=> d his

(FILE 'HOME' ENTERED AT 10:12:18 ON 24 APR 2003)

FILE 'REGISTRY' ENTERED AT 10:12:32 ON 24 APR 2003

L1 STR
L2 0 S L1
L3 STR L1
L4 STR L3
L5 STR L4, DIS
L6 STR L4
L7 STR L6
L8 0 S L7
L9 0 S L7 FULL
L10 STR L7
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L21 1 S L20
L22 2 S L20 FULL

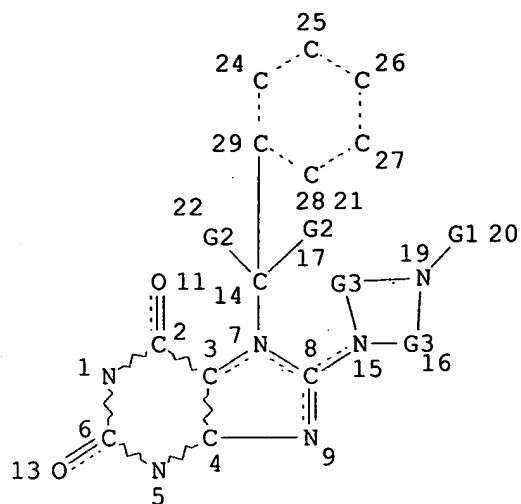
FILE 'HCAPLUS' ENTERED AT 10:56:37 ON 24 APR 2003

L23 1 S L22

2 compds in Reg. - pls see 1 gne stat for structure
1 cit in CA Plus - its 2002, attached
(Ocit's prior to 2002)

=> d que stat 123
L20 STR

Ak 30



VAR G1=H/CH3
VAR G2=C/H
REP G3=(1-7) CH2
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS LOC UNS AT 30
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE
L22 2 SEA FILE=REGISTRY SSS FUL L20
L23 1 SEA FILE=HCAPLUS ABB=ON L22

=> d ibib abs hitstr 1-1

L23 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:31449 HCAPLUS

DOCUMENT NUMBER: 136:102402

TITLE: Preparation of piperazinylpurinediones as inhibitors of dipeptidylpeptidase IV.

INVENTOR(S): Kanstrup, Anders Bendtz; Christiansen, Lise Brown; Lundbeck, Jane Marie; Sams, Christian K.; Kristiansen, Marit

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.

SOURCE: PCT Int. Appl., 135 pp.

CODEN: PIXXD2

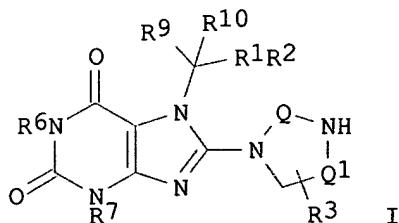
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002560	A2	20020110	WO 2001-DK467	20010704
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 2001068958 A5 20020114 AU 2001-68958 20010704 EP 1301187 A2 20030416 EP 2001-947211 20010704 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2002161001 A1 20021031 US 2001-935149 20010822 PRIORITY APPLN. INFO.: DK 2000-1040 A 20000704 US 2000-223240P P 20000704 WO 2001-DK467 W 20010704 OTHER SOURCE(S): MARPAT 136:102402 GI				



AB Title compds. [I; m, n = 1, 2; Q = (CH₂)_n; Q1 = (CH₂)_m; R1 = CO, CS, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloheteroalkyl, aryl, aralkyl, heteroaryl, heteroarylalkyl; R2 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloheteroalkyl, aryl, aralkyl, heteroarylalkyl, heteroaryl, cyano, halo, OH, NO₂, SH, SR₅, SOR₅, SO₂R₅,

CO₂H, CO₂R₄, CON(R₅)₂, alkoxy, alkenyloxy, alkynyloxy, aryloxy, heteroaryloxy; R₃ = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloheteroalkyl, aryl, aralkyl, heteroarylalkyl, heteroaryl, alkoxyalkyl, CO₂H, cyano, NO₂, halo, OH; R₃R₃C, R₄R₄C = spiro system; R₄ = (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloheteroalkyl, aryl, heteroaryl, cyano, halo, OH, NO₂, CF₃, alkoxy, alkenyloxy, alkynyloxy, aryloxy, heteroaryloxy, etc.; R₅ = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloheteroalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl; R₆ = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloheteroalkyl, aryl, heteroaryl; R₇ = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloheteroalkyl, aryl, heteroaryl; R₉ = H, halo, (substituted) alkyl, aryl; R₁₀ = H, halo; R₉R₁₀ = atoms to form a cyclopropyl ring], were prep'd. as DPP-IV inhibitors (no data). Thus, 1,4-diazepan-6-ylmethanol, 7-benzyl-8-chloro-1,3-dimethyl-3,7-dihydropurine-2,6-dione, and K₂CO₃ were stirred at room temp. for 24 h, heated to 60.degree. for 3 h, heated to 95.degree. for 5 h, and heated to 120.degree. for 2 h to give 7-benzyl-8-(6-hydroxymethyl-1,4-diazepan-1-yl)-1,3-dimethyl-3,7-dihydropurine-2,6-dione.

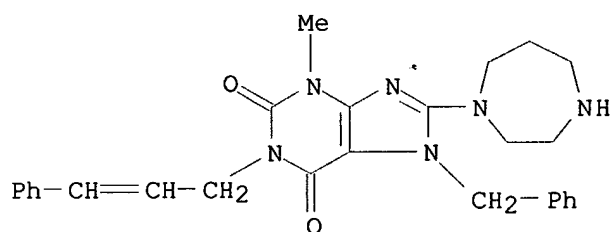
IT 389060-65-5P 389062-41-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of piperazinyldipurinediones as inhibitors of dipeptidylpeptidase IV)

RN 389060-65-5 HCAPLUS

CN 1H-Purine-2,6-dione, 8-(hexahydro-1H-1,4-diazepin-1-yl)-3,7-dihydro-3-methyl-7-(phenylmethyl)-1-(3-phenyl-2-propenyl)- (9CI) (CA INDEX NAME)



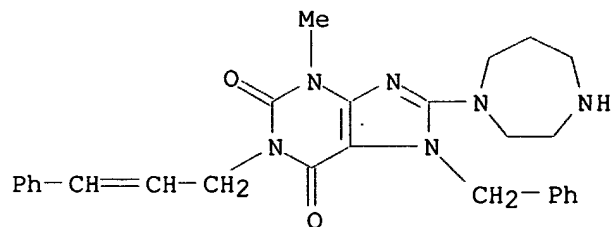
RN 389062-41-3 HCAPLUS

CN 1H-Purine-2,6-dione, 8-(hexahydro-1H-1,4-diazepin-1-yl)-3,7-dihydro-3-methyl-7-(phenylmethyl)-1-(3-phenyl-2-propenyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 389060-65-5

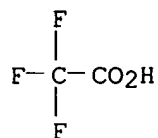
CMF C27 H30 N6 O2



CM 2

CRN 76-05-1

CMF C2 H F3 O2

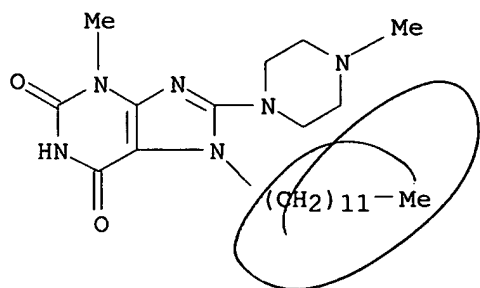


10 compounds from Registry, only 2 appear in literature

Berch 09/935,149

=> d 16 1-10

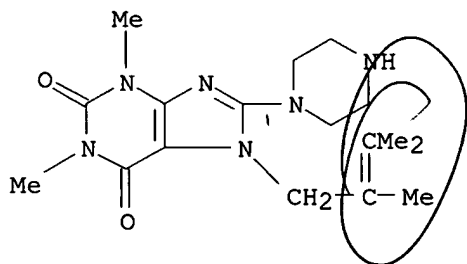
L6 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2003 ACS
RN 477333-67-8 REGISTRY
CN 1H-Purine-2,6-dione, 7-dodecyl-3,7-dihydro-3-methyl-8-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C23 H40 N6 O2
SR CAS Registry Services



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

*
revised
from
CA Plus

L6 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2003 ACS
RN 454706-71-9 REGISTRY
CN 1H-Purine-2,6-dione, 7-(2,3-dimethyl-2-butenyl)-3,7-dihydro-1,3-dimethyl-8-(1-piperazinyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H26 N6 O2
SR CA
LC STN Files: CA, CAPLUS

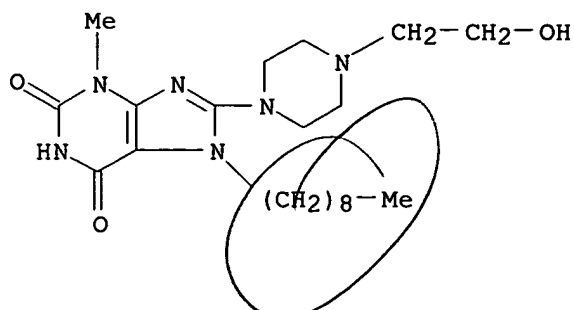


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

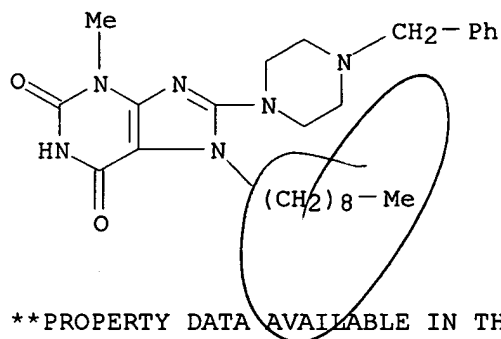
L6 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2003 ACS
RN 402470-56-8 REGISTRY
CN 1H-Purine-2,6-dione, 3,7-dihydro-8-[4-(2-hydroxyethyl)-1-piperazinyl]-3-methyl-7-nonyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C21 H36 N6 O3

SR Chemical Library
LC STN Files: CHEMCATS



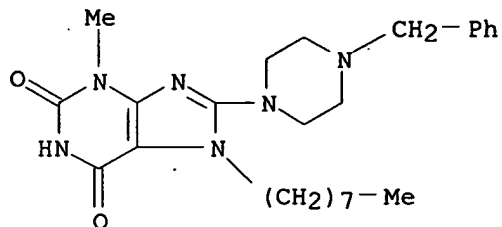
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L6 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2003 ACS
RN 378201-33-3 REGISTRY
CN 1H-Purine-2,6-dione, 3,7-dihydro-3-methyl-7-nonyl-8-[4-(phenylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C26 H38 N6 O2
SR Chemical Library
LC STN Files: CHEMCATS



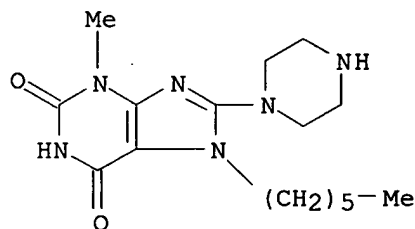
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2003 ACS
RN 377060-82-7 REGISTRY
CN 1H-Purine-2,6-dione, 3,7-dihydro-3-methyl-7-octyl-8-[4-(phenylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C25 H36 N6 O2
SR Chemical Library
LC STN Files: CHEMCATS



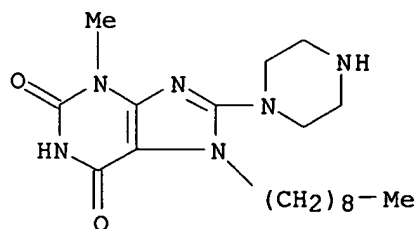
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2003 ACS
 RN 371927-37-6 REGISTRY
 CN 1H-Purine-2,6-dione, 7-hexyl-3,7-dihydro-3-methyl-8-(1-piperazinyl)- (9CI)
 (CA INDEX NAME)
 FS 3D CONCORD
 MF C16 H26 N6 O2
 SR Chemical Library
 LC STN Files: CHEMCATS



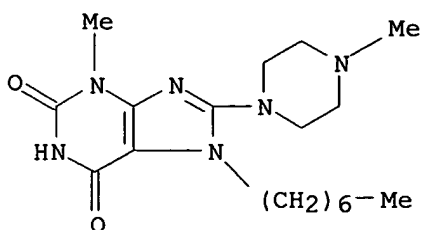
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2003 ACS
 RN 329702-29-6 REGISTRY
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3-methyl-7-nonyl-8-(1-piperazinyl)- (9CI)
 (CA INDEX NAME)
 FS 3D CONCORD
 MF C19 H32 N6 O2
 SR Chemical Library
 LC STN Files: CHEMCATS



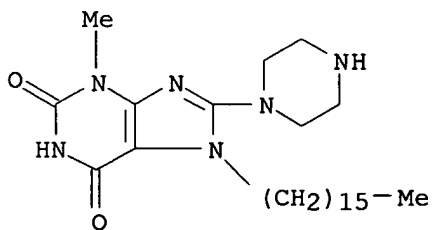
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2003 ACS
 RN 313471-56-6 REGISTRY
 CN 1H-Purine-2,6-dione, 7-heptyl-3,7-dihydro-3-methyl-8-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C18 H30 N6 O2
 SR Chemical Library
 LC STN Files: CHEMCATS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2003 ACS
 RN 304876-71-9 REGISTRY
 CN 1H-Purine-2,6-dione, 7-hexadecyl-3,7-dihydro-3-methyl-8-(1-piperazinyl)- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C26 H46 N6 O2
 SR Chemical Library
 LC STN Files: CHEMCATS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2003 ACS
 RN 106939-21-3 REGISTRY
 CN 1H-Purine-2,6-dione, 7-heptyl-3,7-dihydro-3-methyl-8-(1-piperazinyl)- (9CI) (CA INDEX NAME)
 FS 3D CONCORD

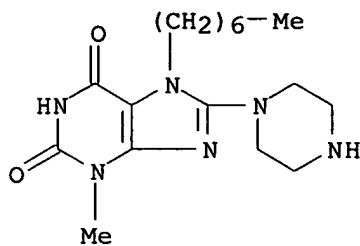
*Refined
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CA Plus*

Berch 09/935,149

MF C17 H28 N6 O2

SR CA

LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, TOXCENTER



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)